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CENTRAL INTELLIGENCE AGENCY

INTELLOFAX 29

INFORMATION REPORT

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COUNTRY : USSR

DATE DISTR. 25 JAN 52

SUBJECT : Area Description of Zavod No 2

NO OF PAGES 9

25X1

PLACE ACQUIRED:

NO OF ENCLS. 3 (LISTED BELOW)

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DATE ACQUIRED

SUPPLEMENT TO REPORT

DATE OF INFORMATION:

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THIS IS UNEVALUATED INFORMATION

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General

1. Zavod #2 is located on the east bank of the Volga River, some 14 km north of Kuibyshev. The plant site is situated on a plateau about 150-200 m above the river, which widens at that point to approximately 8 km. (Its breadth is increased by an island which separates the river into two arms.) The west bank of the river, directly opposite the plant, is quite hilly; towards the south, the hills slope down and the river bank levels entirely, permitting a view many miles inland. In winter, the Volga freezes over to a thickness of 1½ m and is used as the official highway. I have seen the ice support the heaviest traffic, including trucks carrying heavy cranes. The river rises 10 m above the mean level in the spring, and the boathouse, which is located at the end of a ravine immediately at the foot of the plant, rises with the water level. This facilitates boat traffic to the island as soon as the ice is broken. I do not think that the Volga is spanned by a bridge at Kuibyshev. In fact, I have never seen a bridge spanning the Volga; in transit both to and from Kuibyshev, we crossed the Volga at night. (I do remember a bridge, consisting of three crescent arc trusses, which spanned the Samara River at Kuibyshev --this river is approximately 150 m wide.) Some sections of the ground on which Zavod #2 has been built are of solid granite rock; others are of calcium rock, which crumbles very easily. The area around the plant is wooded with a variety of trees--primarily oak, maple and birch.

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(20)

Site Layout

2. I have prepared a sketch /Enclosure (A)/ of Zavod #2, on which the following are shown:

Point 1 Guard House

A one-story wooden building at which a guard was stationed. It contained a weapons and uniform arsenal used to implement plant security.

Point 2 Machine Shop

A hall-type, one-story, brick structure. (It was 6 m high on the side walls and 12 m high in the center.) The roof was supported by steel trusses whose bases were set in cement blocks at about ten meter intervals along the length of the hall. A monitor, about 40 m wide and 6 m high at the crest, formed the center of the roof. The trusses were connected by metal beams on which wooden boards, covered with tar paper, were laid lengthwise on their narrow side. The monitor had windows at its sides. From the east, two gates, about 4 m high, led into the building. (The northern gate was generally kept open; it was high and wide enough to permit trucks to enter.) Along the sides of the building were high windows, evenly spaced. There were no traveling cranes in the machine shop, but several hand-operated chain hoists served in placing pieces of metal into proper position at the various machine tool stands. Three-four hundred people were employed in this shop. I remember that the Machine Shop was equipped with the following: two-three vertical lathes; at least three heavy lathes with a disc diameter of 1.20 m; and about four smaller lathes of 1 m disc diameter, which were used particularly in the manufacture of compressor casings.

Point 3 Annex

This brick building was annexed to the Machine Shop. It was a two-story building about 12 m high. The following were on the first floor:

(a) Small test stands for pumps, regulators, turbine starters, and combustion chambers.

(b) Carpenter Shop

(c) Heat Treatment Shop

(d) Forge

Until summer 1950, the Annex was used as an assembly hall; it was then converted to its present use. No German personnel worked in the forge shop. The upper story consisted of office rooms. The office of the Soviet Plant Manager and Chief Engineer, Kusnitzov, was directly above the Heat Treatment Shop. The plant Finance Department was above the Forge Shop.

Point 4 Sheet Metal and Welding Shop

A one-story brick building, about 8 m high, with a curved, truss roof. There were two entrances to this shop--a large entrance gate at the middle of the west side, and another at

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the northeast corner of the building. A depository for scrap iron was located east of the building. Tools and sheet metal were stored and issued to the workers in the northeast corner of the shop. The Sheet Metal and Welding Shop offices were located in the southeast corner of the building.

There were no traveling cranes in this shop, but, as in the Machine Shop, several hand-operated hoists were used. Several heavy lathes and a number of filing benches, plate shearers, edging machines, and bending machines were also among this shop's equipment. Approximately 100 people worked there.

Point 5 OKB Building

A two-story brick building, about 12 m high. The main entrance was at the center of the north side. A guard was posted here who checked the identification cards of those entering the building. There were also two small entrances in the wings of the south side. Until September 1950, test stand personnel could enter the southwest portion of the building to visit the Testing Department (Versuchsabteilung) without showing an identification pass. The OKB Building included approximately the following:

The southwest wing, starting from the west:

(a) The Blue Print Room (Lichtpaus Zimmer)

(b) File of drawings and central register

(c) Archives (Special permission to enter the file and archives rooms had to be indicated on the bearers' identification cards, before entry to these rooms was permitted.)

The southwest wing, starting from the east:

(a) Large drawing room (no Germans worked here)

(b) Offices of engineers Treiber and Heber

25X1 (c) Drawing rooms of the Treiber Group
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The northeast wing, starting from the east:

(a) Office of engineer Dornhoefer

(b) Central office of engineers Treiber and Heber.

(c) An office in which I believe quota planning was done.

25X1 The northwest wing contained offices which may have belonged to the Madaranski Group
25X1 I was not permitted to enter these offices.

The southwest wing of the upper floor:

(a) Testing Department, in which engineers Ceriattke, Hiepmann, Kerwin, Bochlke, Brauer, Wagner and Pohl worked.

(b) Office of Prestel, Chief of the Testing Department

(c) Office of the Soviet Testing Department Chief, Quassov. (Quassov was transferred to Moscow in spring 1951 to take refresher courses.) I do not remember the name of Quassov's successor, but we called him "the Swineherd".

(d) With the exception of the "Red Room", the remainder of the south side was assigned to engineers who worked on the planning and designing of engines and engine parts. I do not remember the order in which their offices were located; I do remember that Brandner's office was near the center of the upper floor and that the office of the Soviet Deputy Chief, Engineer Kutcherenko, was next to his.

(e) "Red Room" - each department had such a room in which political assemblies were held, and in which trophies for work performance and quota-fulfilling were stored. The "Red Room" of the OKB Department was located on the south side on this floor.

The entire north side of this floor was used for offices of the Madaranski Group.

Point 6 Old Test Stands

/See Enclosure (B)/

(a) Stand 1 - Compressor stand

(b) Stand 2 - Propeller stand

(c) Stand 3 - Water brake stand

(d) Stand 4 - Propeller stand

/See Point 9 for a description of the new test stands./

Point 7 Old Fuel Tanks

This installation consisted of three tanks--two of them were about 2 m in diameter and 3 m long, and the other tank was about 2 m in diameter and 6 m long. The tanks were built into the ground and filled by trucks which came from Krasnaya-Glinka. A circulation pump from the tanks provided the test stands with fuel. There was never a shortage of kerosene.

Point 8 Transformer Station

There were three transmission systems supplying power from outside the plant. The power was probably supplied from Kuibyshev. One system, consisting of four high-tension lines, supplied power for plant operation. Four steel masts, arranged in a square, were located next to the Transformer Station. The transformers were located outside of the building, between the steel masts. The second system supplied power for lighting the plant. The third system was an emergency line which provided the plant with power should the other two systems break down. (Occasionally, during the first two years, an emergency occurred, but the emergency line, too, would break down, and the plant was completely without current.)

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The building was a one-story brick structure, about 5-6 m high, 8 m wide, and 20 m long.

Point 9 Building 22 (The New Test Stand Building) /See Enclosure (C)/

A brick building, about 12 m high, which had a slightly sloping slate roof. There was no entrance into the building from the south side. Two gates, both about 4 x 4 m, afforded access to the building from east and west. There were also open gates leading into each of the test stands from the north side--these gates were to have descending, rolling doors, but at the time of my departure, no doors had been built. A small welding shop was located left from the entrance on the east wing.

Construction on Building 22 was almost completed [redacted] Zavod #2. Stand #1, a propeller stand, was operational in September 1950. Test stand #2 was operational for the first time on 7 Nov 51, when the first test on the 022 M engine was conducted. Stand #3 was to be a water brake stand for the testing of engine 022 K; the stand itself had not been installed at the time of my departure. Work on stand #4 had not begun in December 1951, and I do not know for what purpose it was designed. Square exhaust chimneys, 10 m above the crest of the roof, had been erected above all the test stands except #4. (The roof sections above the test stands were only 10 m high, slanting slightly toward the exhaust chimneys.)

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Both wings of the building contained offices. There were eight windows along the south and north facade; the only other windows along the northern face of the building were the four in the control rooms of the test stands. The south facade frontage was about 60 m long; nine high windows admitted light into the assembly hall, which had not been completed [redacted] The engine assembly hall could be reached through two side gates. Trucks carrying the engines to the test stands were frequently routed through the side gates, when poor weather prevented the use of an uncompleted road which led from the north side of the building to the test stands. Some old engines of the 004 and 018 type were lying on the ground inside of the assembly hall, but no machinery had been installed within. There were two electrically operated traveling cranes in the hall. OKB engineers told me that this hall was to be used for the assembly of the 022 M engine. Building 22 contained the following:

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To the right of the entrance, going north:

(a) Three storage rooms

(b) An electric shop

(c) A shop for accumulator charging

(d) A room which was to be a blower shop was located right of the entrance, on the west side

The north side:

(a) Two shower rooms

(b) Two dressing rooms

(c) Scrap metal room

On the second floor of the east wing (which could be reached through a small door immediately north of the gate, and a staircase which led to a passage spanning the driveway), the following was located, to the left:

(a) Office of the German chief of the test stands and engine assembly, Alfred Gimm. His room could only be reached by going through the timekeeper's office.

(b) Office of the timekeeper, who kept personnel charts on which working time and personal achievements were recorded.

(c) Office of (fnu) Sergyev, the Soviet Chief of the test stands. His former office was in a small room near the old Test Stand #2. He changed offices in fall 1950.

(d) A small room with drawing boards, which apparently was not assigned to anyone.

The following rooms were located along the right side of the passageway:

(a) Office of Test Stand Control Chief, (fnu) Katchalov.

(b) Office of Fritz Wilhelmi, Chief of Material Procurement for all test stands.

(c) "Red Room" for Building 22.

(d) A room which was always kept locked.

(e) A room with drawing boards, where girls made measuring tapes. (Their tapes were sometimes so inaccurate that one of the compressor tests had to be repeated as a result of their being used in making the measurements.)

(f) Office of (fnu) Herber, Chief Engineer of the entire Test Stand Department, including test stand installations and planning.

The following were along the right of the passageway, on the second floor:

(a) Office for oil and fuel procurement. The records of oil and fuel supply were kept here, and oil analyses were also made in this office.

(b) Electric heater for the shower rooms

(c) Office of the watchmaker, Richard Steffan

(d) Store room for low voltage electrical equipment

The test stand rooms were 8½ m square. The walls were 75 cm thick and built of red brick. The ceiling was made of concrete. The exhaust chimneys (not yet installed in Stand #4) were behind the test stand rooms, and were also 8½ m square.

Diagonally from top to bottom of the exhaust chimneys were shafts on which airfoils were fastened to deflect the exhaust vapors into the chimneys. The control rooms were built about 4 m above the ground floor and could be reached by a stairway from the engine assembly hall. One control room served two test stands; the window overlooking the test stand was only a short distance in front of the exhaust chimney. There were two small rooms, about 2 m wide, immediately north of one control room. They contained the oil coolers and fuel filters. Stairs led from the control rooms to a gallery on which electric installations such as transformers, switchboards, and meters were mounted. The gallery enclosed a large hall on the ground floor which was not used for any specific purpose. Along the wall of this hall were pipes and lines which connected the test stands with the control rooms.

Point 10 A Fuel Tank Installation for the New Test Stands

Several tanks (exact number unknown), about 2 m in diameter and 6 m long, were built into the ground.

Point 11 Air Compressor House

Bottles were filled with air to a pressure of 120 atmospheres in this building. The pressured air was used for welding and for starting the O12 engine. Two-three compressors were located in the building, which was an old wooden structure. Only Soviet personnel were employed in the Air Compressor House.

Point 12 Heating Plant

This plant, about 10 m high, was built into the slope at the rim of the plateau on which Zavod #2 is situated. There was a pile of sludge coal on the east side of the building. The coal was shoveled into the Heating Plant by means of chutes.

Point 13 Engine Assembly Hall

The center hall was a one-story structure about 8 m high, with two-storied north and south wings about 12 m high. The wings could be reached by stairs which led to a connecting gallery. The following were located in the south wing: a soldering shop, a room in which nuts and bolts were stored, and the office of engineer Steuk, who was in charge of engine assembly. A fuel purification installation was in the north wing. (In the center of the east side of the building was an entrance gate which was so low that the truck with the twin 022 M engine could pass through the gate only when the air was released from the truck tires.) The center hall ceiling was flat with cross-beams running the width of the ceiling. There were two hand-operated cranes used in this center section. Each crane had two pulleys and ran on rails, operated by bogie and cog wheels. Boxes in which the engines could be assembled were located in the center hall; seven engines could be assembled at one time. Along the sides were filing benches and lathes; also the assembly of reduction gears and turbine starters. Only Soviet personnel were employed in the upper stories of the wings. About 100 persons per shift were employed in the assembly of engines.

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Point 14 Materials Analysis Laboratory

A two-story brick building about 12 m high. A little tower in which the fire department posted its lookout was built onto the west side. Tests were conducted in the northeast wing. Precision mechanics shops, lathes for watchmakers, photographic laboratories, etc, were located in the southwest wing. I never visited any other sections of the building.

Point 15 Guard Towers

Point 16 Paved Roads

Point 17 Cleared Area

Originally this area was assigned for the construction of the altitude test stands, dismantled from Dessau. However, work on this project was discontinued and all associated equipment was recrated and shipped out in the period from May until September 1951. The crating and numbering of the equipment was supervised by Boelke and Groebner, both German engineers in charge of the stands in Dessau.

Point 18 Wooden Fence

Six meters high. The guards stationed at the towers (Point 15) were instructed to shoot at anyone approaching within three meters of the inside of the fence.

Security Measures

3. The chief of the MVD at Zavod #2 was (fnu) Kolichenko. There were many security measures at the plant, all of which were stringently enforced. Upon arrival at the Guard House (Point 1), Zavod #2 employees were to tell the guard the number of their identification card, whereupon the card was given to them; with this they could enter the plant compound. The cards bore various stamps, which indicated the departments to which the bearers were permitted to enter. (I remember that the stamp permitting entrance to the OKB design offices bore the number "5" and the stamp for admission into the assembly hall was numbered "12",

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4. At the entrance of the OKB Building, identification cards had to be relinquished to the guard, who kept it until the bearer left the building. Upon leaving the plant compound, the card had to be returned to the guard at the Guard House gate. These guards were generally women, dressed in a black uniform, black overcoat and cap; they had revolvers at their belts.

5. Another point in the plant where identification was checked was at the entrance to Department 14, Test Stands. The entire area of the test stands was surrounded by a wooden fence, about 6 m high. The entrance to this enclosure was also guarded by women. This security measure was deemed necessary because no outsider was to see the propellers which were mounted outside of the Test Stand Building. A guard was also stationed at the entrance of Building 22 (the New Test Stand Building).

6. The entire compound was surrounded by a wooden fence about 4 m high, interspersed about every 150 m by wooden watch towers. Guards, stationed here night and day, were equipped with single-shot rifles. Additional "prowl" guards patrolled the area at night. Areas in which penal laborers were working (many were employed in the erection of buildings, digging foundations, etc) were surrounded by barbed wire fences, at the top of which guard towers were situated. The penal workers were guarded by men wearing black uniforms, with green shoulder emblems. These guards, accompanied by dogs, were armed with automatic pistols.

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ENCLOSURE (A) Memory Sketch of Zavod #2

ENCLOSURE (B) External Views of Old Test Stands

ENCLOSURE (C) New Test Stands (Building 22)

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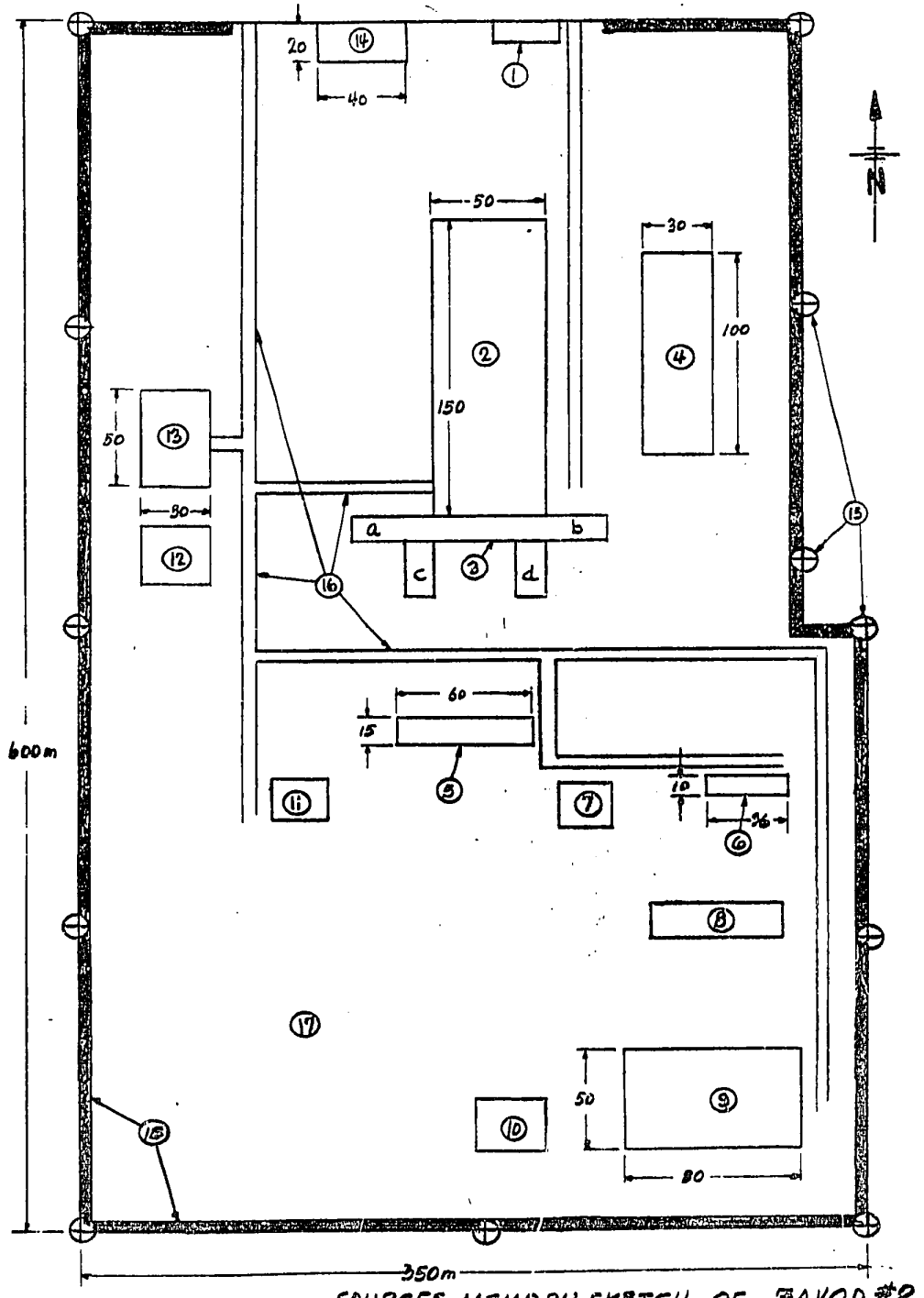
SECRET/SECURITY INFORMATION

Encl "A"



SOURCES MEMORY SKETCH OF ZAVOD #2

ENCLOSURE (A)

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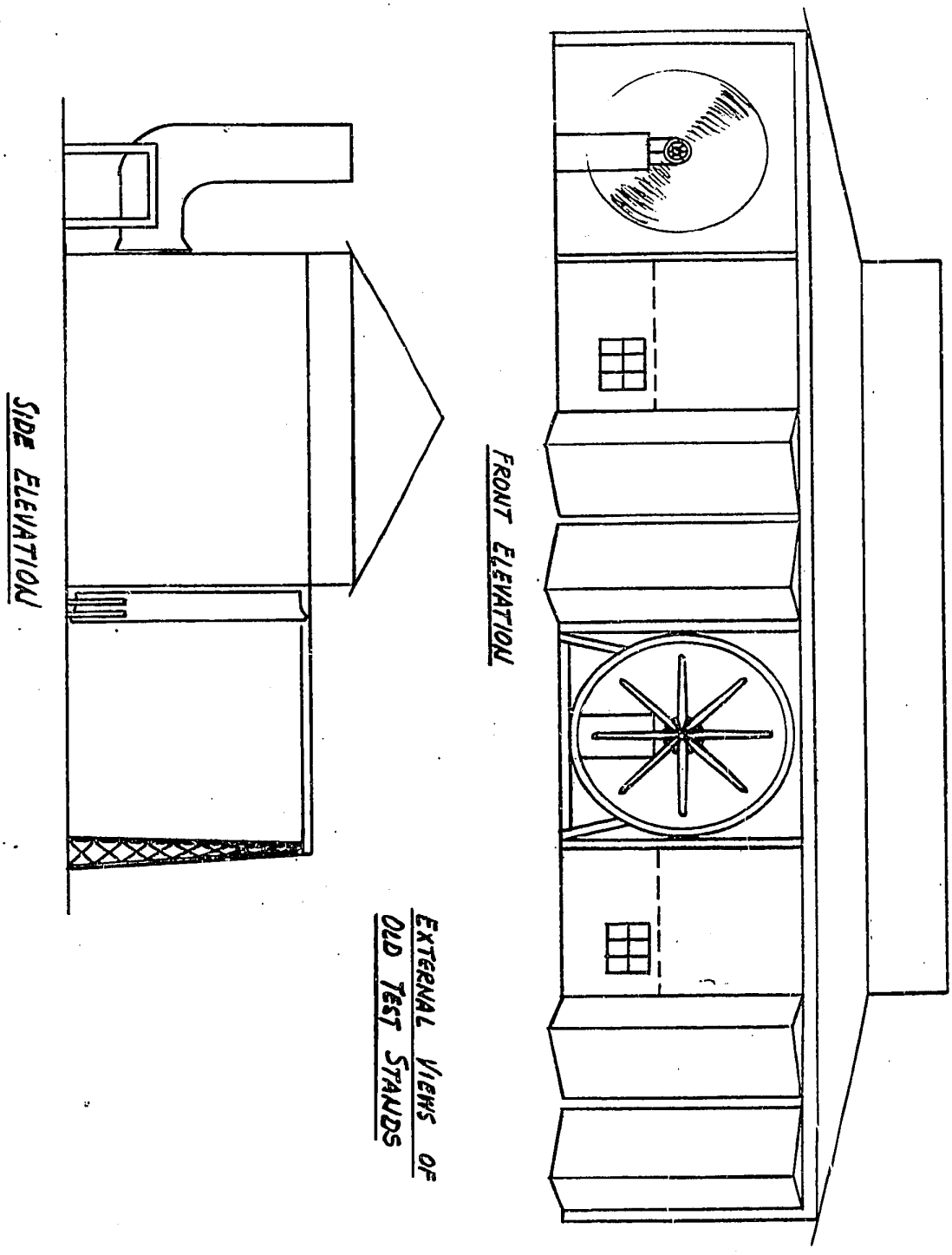
Encl. "B"



SIDE ELEVATION

FRONT ELEVATION

EXTERNAL VIEWS OF OLD TEST STANDS

ENCLOSURE (B)

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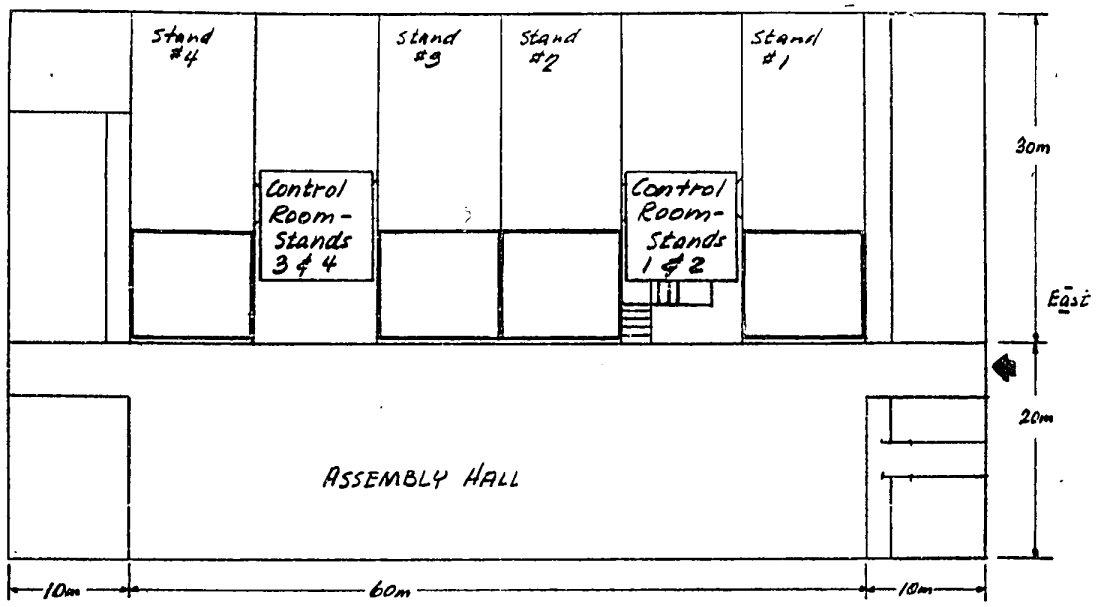
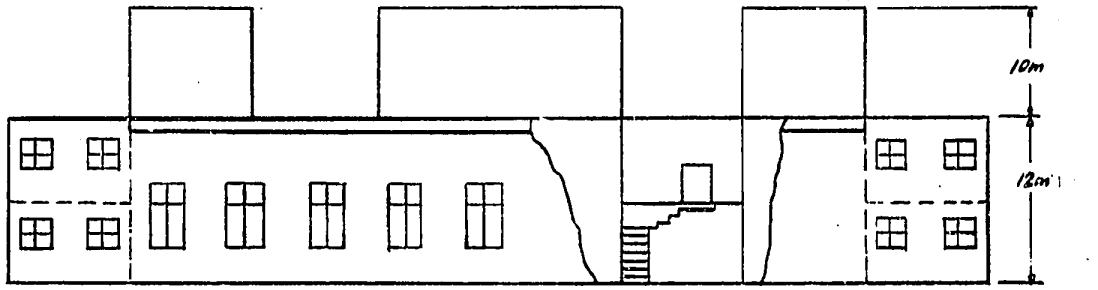
SECRET/SECURITY INFORMATION

Encl "C"



FLOOR PLAN



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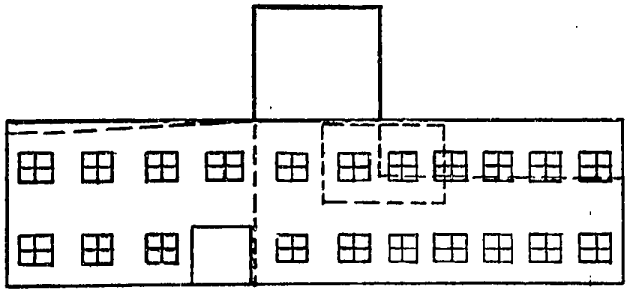

SIDE ELEVATION

NEW TEST STANDS
BLDG. #22

ENCLOSURE (C)

SECRET